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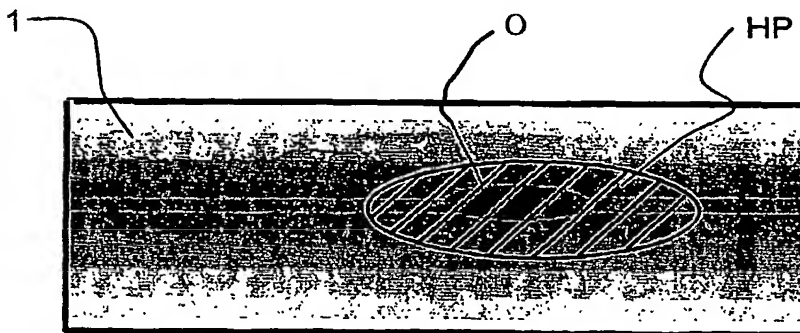
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(54) Title: MEDICAL VIEWING SYSTEM AND IMAGE PROCESSING METHOD FOR VISUALISATION OF FOLDED ANATOMICAL PORTIONS OF OBJECT SURFACES



(57) Abstract: A medical viewing system having means, for analysing and visualising medical image data corresponding to folded surfaces, comprises means of segmentation of the image data to identify the object surface, means for approximating the object surface by a reference surface, and means for detecting folded portions of the object surface including means for determining points of the reference surface at which a normal to a zone forming a patch on the reference surface intersects with the object surface. If there are more than one point of intersection, then that patch corresponds to a folded portion of the object surface. Fold-portion patches are assigned a code such that, on display or printing of an image (RP) corresponding to the reference surface, the fold-portion patches will be flagged (for example by coloured or patterned regions (HP). Other fold-attribute data can also be determined, coded and displayed: for example, the number and location of intersections between the first surface and the normal to the fold-portion patch, the distance to the first intersection, the distance between the second and third intersections, etc.

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# INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/IB 03/01383

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06T17/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06T A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, COMPENDEX, INSPEC, EPO-Internal, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ZUIDERVELD K J ET AL: "Multimodality visualization of medical volume data" COMPUTERS AND GRAPHICS, PERGAMON PRESS LTD. OXFORD, GB, vol. 20, no. 6, 1 November 1996 (1996-11-01), pages 775-791, XP004016295 ISSN: 0097-8493 section 3 and 4 --- -/--	1-13

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>LONCARIC S ET AL: "3-D deformable model for aortic aneurysm segmentation from CT images"</p> <p>PROCEEDINGS OF THE 22ND ANNUAL EMBS INTERNATIONAL CONFERENCE, vol. 1, 23 July 2000 (2000-07-23), pages 398-401, XP010530302 Chicago IL</p> <p>page 399-400, section "III. 3-D abdominal aortic aneurysm segmentation" figure 1</p>	1-13

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